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CERTIFICATION OF ATTACHED ENGLISH TRANSLATION OF PCT APPLICATION:

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I hereby certify the English translation attached is a true and accurate copy of the referenced PCT/EP2004/009581 application.

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# Storage compartment for a refrigeration device

The present invention relates to a storage compartment which can be mounted in a refrigeration device to store refrigerated products therein. Storage devices of this type can be mounted on the body of a refrigeration device; then they mostly have the form of plates suspended on opposing walls of an interior compartment of the refrigeration device and largely fill the free base area of the interior compartment. Storage devices for mounting on an inside of the door of a refrigeration device mostly have the form of boxes open at the top which can be mounted with the aid of locating means on the box and the inside of the door which are adapted to one another, at selectable heights on the inside of the door. Storage devices in the form of boxes which can be mounted on the inside of the door and have a pivotable flap are also in common use.

Many of these storage device are dismountable so that they can be mounted at different heights in a refrigeration device as required by the user but the mounting and dismounting process is usually difficult so that it is not appropriate for a user to completely remove such a storage device when he would like to access refrigerated goods stored therein or thereon.

It is the object of the invention to provide a storage compartment which is at least partly removable from the refrigeration device in order to access its contents and which then can be placed quickly and conveniently back in the refrigeration device.

The object is solved by a storage compartment for a refrigeration device, comprising a frame that consists of at least two elongated arms located at a fixed distance from one another and a holder for the refrigerated products which is configured to rest on the arms and to engage in a locating manner into an intermediate space between the arms. The two-part structure allows the frame to be left at its position of installation when the refrigerated-goods holder is removed so that the refrigerated-goods holder can simply be placed back on the arms again and located therein when it is no longer required outside the refrigeration device. This locating in the intermediate space between the arms secures the refrigerated-goods holder against slippage and falling out which is especially important when the frame is mounted on the door of the refrigeration device.

The two arms are preferably constructed as contiguous and in one piece so that the fixed distance between them is defined by this relationship.

The frame preferably surrounds the intermediate space, that is the arms are interconnected at their two ends. A high degree of stiffness and stability of the frame is thus achieved.

For the handling of the refrigerated-goods holder, however it can also be appropriate if the two arms each have one end connected to a common anchoring portion and one free end.

The refrigerated-goods holder can be a container whose walls enclose an interior space but it can also be constructed as substantially plate-shaped without an enclosed interior space.

If the refrigerated-goods holder is a container, from the point of view of the stability it is desirable if its interior extends below the arms so that the centre of gravity of the refrigerated-goods holder and optionally its contents come to lie as low as possible. In such a case, it is the container itself which is located between the arms.

A cover can be allocated to the container.

If the refrigerated-goods holder is a supporting plate resting on the arms, this is appropriately provided on its underside with at least one projection for locating engagement in the intermediate space to thus ensure secure holding on the arms. A cover can be allocated to the supporting plate, in this case the cover should be constructed as container-shaped with an interior compartment.

It is especially preferable if this container-like cover
itself can be inserted as a refrigerated-goods holder in the frame alternatively to the supporting plate.

In this arrangement, the conventional supporting plate can take over the function of the cover, in other words the supporting plate and its cover can be placed in two different configurations

in the frame, once with the supporting plate at the bottom and on the other occasion with the cover at the bottom.

The arms of the storage compartment are mounted on an inner side of a door of a refrigeration device, optionally by means of the anchoring portion. However, it would be equally possible to attach the device on an inner wall of the body of a refrigeration device.

Further features and advantages of the invention are obtained from the following description of exemplary embodiments with reference to the appended figures. In the figures:

Figure 1 is a perspective view of a frame of the storage compartment according to a first embodiment of the invention;

Figure 2 is a perspective view of a second embodiment of the frame;

Figure 3 is the frame from Figure 1, equipped with a plate-like refrigerated-goods holder;

Figure 4 is the frame from Figure 1, equipped with a container-like refrigerated-goods holder;

Figure 5 is a view of the storage compartment from Figure 3, where the container-like refrigerated-goods holder is placed on the plate-like refrigerated-goods holder as a cover; and

Figure 6 is a schematic section through a refrigeration device which shows different possibilities for attachment of the storage compartment.

Figure 1 shows a perspective view of the frame 1 of the storage compartment according to the invention and a fragment of a wall 2 of a housing of a refrigeration device in which the frame 1 is mounted. The wall 2 is fitted at regular intervals with fixing spigots 3 which can be lowered, of which one is shown in the retracted state.

The frame 1 has the shape of an L profile comprising a horizontal leg 4 in which a large, in this case rectangular, opening 5 is cut which largely reduces the leg 4 to parallel arms 6 surrounding the opening 5 and a web 7 adjacent to the wall and a web 8 facing away from the wall 8. Two approximately T-shaped recesses 9 are cut into the web 7 near the wall, each forming together with recesses 10 of the vertical leg 11 a receiving opening for one of the fixing spigots 3. The frame 1 is fixedly anchored to the wall 2 by means of two fixing spigots 3 which engage in these receiving openings (of which only one is shown here).

In a modification of the frame 1 shown in Figure 2, the web 8 facing away from the wall 2 is reduced to two fingers 12 directed towards one another which project from the free ends of the arms 6.

Figure 3 shows the frame 1 from Figure 1 fitted with a supporting plate 13 which functions as a refrigerated-goods holder, and which rests on the arms 6 and the webs 7, 8 connecting said arms. The supporting plate 13 is shown as transparent in the figure in order to be able to show two projections 14 which serve as feet for the supporting plate 13 when this is not held in the frame 1 but for example is placed on a worktop. The projections 14 are dimensioned and placed so that they hold the supporting plate 13 non-displaceably in the horizontal direction as a result of their engagement between the arms 6 and the webs 7, 8.

For simplicity the supporting plate 13 is shown in the figure with a flat upper side; however, it can be arched for example or have locating projections or webs which hold a cover placed on the supporting plate 13 (not shown in the figure) so that it cannot be displaced in the horizontal direction.

Figure 4 shows the frame 1 from Figure 1 equipped with a refrigerated-goods holder in the form of a box 15 comprising a base and four side walls. A circumferential flange 16 at the upper edge of the side walls rests on the arm 6 and the webs 7, 8; the box 15 itself has its dimensions adapted to the spacing of the arms 6 so that it engages in the opening 5 in a located fashion and cannot be displaced horizontally.

Figure 5 shows the same box 15 as in figure 5 but this time in a turned orientation in which it serves as a cover for the supporting plate 13 from Figure 3. The supporting plate 13 and the box 15 can thus be used jointly for example as a butter dish which can easily be removed together with the contents from the frame 1 mounted in the refrigerator and placed on a dining table and can then be replaced in its locating position on the frame 1 after use.

In order to remove this butter dish, a user must grip the supporting plate 13 at it tabs 17 which project laterally over the arms 6 and the box 15. If the tabs 17 are sufficiently large, it can be sufficient to grip only a single one thereof; if the tabs 17 are too short to allow a secure grip, the butter dish must be handled with both hands. The frame 1 from Figure 2 also allows the supporting plate 13 to be gripped with the thumbs from below and the box 15 to be gripped with the other fingers of a hand from above regardless of the size of the tabs 17. This configuration of the frame thus allows the tabs 17 to be kept short and so save space in the refrigerating device.

Figure 6 shows various possibilities for attaching the storage compartment according to the invention by means of a schematic section through a refrigeration device. Although the typical use is the attachment to fixing spigots 3 of a door 18 of the refrigeration device, it is also possible to mount it on an inner wall of the body 19 if this is appropriately provided with the fixing spigots 3.